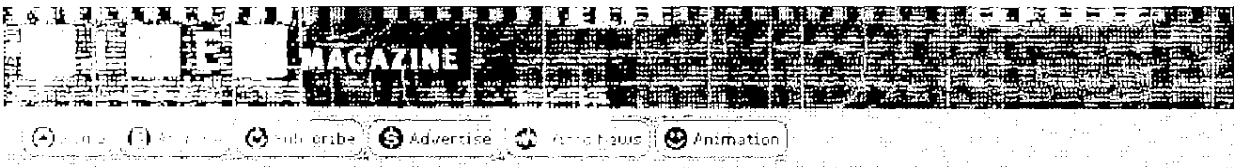

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Come to LeBow Country

By Joshua Davis

Dan Dienner steps out of his 150-year-old barn looking like an Amish rock star. He's wearing the standard-issue straw hat and the classic half-beard, but he's also got a square-jawed handsomeness, blue-tinted sunglasses, and a Nextel cell phone holstered on one hip.

The 43-year-old farmer greets me at the edge of a recently harvested tobacco field bordering his barn. The Pennsylvania countryside is beautiful - horses pulling small black carriages trot by on a narrow paved road, and tree-covered hills can be seen behind Dienner's wood-frame house.

But the bucolic setting isn't exactly what it seems. Drying inside Dienner's barn are 10,000 pounds of genetically modified tobacco - one of the most scientifically advanced agricultural products in the world. "Amish law doesn't say anything about growing genetically modified tobacco," he says.

Inside his house, Dienner offers me a seat beneath a kerosene lamp and explains why he accepted a contract from Vector Tobacco - America's fifth-largest tobacco company - to grow a plant whose DNA has been reengineered to block nicotine biosynthesis. He doesn't seem bothered that the innovation is under attack from the tobacco industry, public health experts, and pharmaceutical

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conglomerates. Or that the transgenic plants have been confiscated, burned, or outlawed almost everywhere Vector has tried to grow them. "Most Amish don't really know what genetically modified means," Dienner says, noting that Vector is paying nearly double the market rate compared with standard tobacco. "We only know that it's got no nicotine in it."

While Amish law doesn't prohibit GM crops, it does dictate that farming be done without the aid of modern machinery. Which explains why mule teams and homemade plows are helping to bring to market the vision of a computer scientist turned tobacco CEO named Bennett LeBow. His plan? Get people to quit smoking by selling them cigarettes.

At 64, Bennett LeBow should be nearing the pinnacle of his career as a tobacco tycoon. Instead, he's struggling to prove himself. After 16 years as CEO of Vector, he hasn't managed to push the company's market share above 3 percent. And while Vector is one of the Big Five - along with R.J. Reynolds, Philip Morris, Brown & Williamson, and Lorrilard - it's a kind of bottom-feeder, selling discount cigarette brands you've probably never heard of: Epic, Liggett Select, Pyramid, Grand Prix. LeBow himself is a pariah, shunned by his colleagues for having been the first industry executive to cooperate with the anti-tobacco lawsuits filed by 40 states in the mid-1990s.

But LeBow, who once owned Western Union and later tried to take over R.J. Reynolds, remains a man of grand ambitions. He wants to develop a major brand of his own and redefine the industry. That's where the January launch of the nicotine-free Quest comes in. "Asking people to stop smoking is like asking them to stay out of the sun," LeBow explains in his no-bullshit staccato when I meet him at Vector's Manhattan headquarters. "It's just not practical. So, instead of telling people to spend their lives indoors, you sell them sunscreen."

With his close-cropped beard and monogrammed shirts, LeBow suggests Hemingway done over as a multimillionaire corporate executive. He motions for me to sit beside him at Vector's hulking conference table. His theory is that Americans like to make lifestyle

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changes the easy way. We'd rather eat low-fat food than eat less. We prefer Prozac to psychotherapy. The newest passive solution, he says, will be his three-tiered cigarette series - the Quest 1, 2, and 3. The first two deliver 17 and 58 percent less nicotine, respectively, than the average light cigarette by blending regular tobacco with Vector's genetically modified, nicotine-free product. Quest 3 contains only the nicotine-free tobacco. Try as you might, it won't give you a buzz. But, as Vector execs admit, all three still contain almost all of the carcinogens present in other cigarettes. They'll give you cancer and heart disease just like regular smokes.

The idea is that people will be able to wean themselves from nicotine while continuing to smoke. Smokers are attached to the ritual, LeBow explains. Forcing them to fight both the addiction to nicotine and the habit of smoking makes it less likely that they'll succeed in quitting. With the Quest, nicotine dependency can for the first time be separated from the ritual. Once the addiction is addressed, smokers will have an easier time breaking the habit.

LeBow jumps up from his chair, disappears around a corner, and comes back with a test carton of Quest 3. The packaging is certainly not Marlboro man. Shades of light blue alternate with indigo, and the words NICOTINE FREE are featured prominently. "Seventy percent of smokers say they want to quit, and 40 percent of them try," he explains, sliding the carton in front of me. "If we can make products that speak to even a fraction of those people, we'll make a lot of money."

The irony is that by enthusiastically admitting cigarettes are deadly, LeBow has opened a new market for his company. He's positioned himself to do well by doing good. So why is it that just about everyone is trying to stop him?

Monday, July 14, 1997, started out as a typical day for Vector's CEO. He arrived at his midtown Manhattan office early, fired up his PC, and began scanning the day's tobacco news. That's when he spotted a short Bloomberg News item that changed his business:

A geneticist in North Carolina had discovered the tobacco gene responsible for nicotine production.

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LeBow was on the lookout for just such a breakthrough. His plan was to build a new kind of tobacco company, one that used science and technology to create a better, safer, less addictive cigarette. Unlike the bigger tobacco firms, Vector had little to lose - and plenty of premium-price market share to gain.

LeBow saw a huge market for a nicotine-free product. After all, GlaxoSmithKline was pulling in $500 million a year selling the nicotine gum Nicorette and the NicoDerm patch. With seven out of ten smokers saying they want to quit (and, of those who try, four out of five failing), the market for a smokable product to help them seemed much bigger than that.

When Vector's North Carolina office found the geneticist - Mark Conkling, director of the biotechnology program at North Carolina State University - he made no guarantees about his ability to deliver a tobacco plant that would be reliably nicotine free. LeBow told him to try and gave the university $100,000 to fund the research.

It took three years, but in 2000, Conkling succeeded. By essentially turning off the nicotine gene, he reduced nicotine production to trace levels. LeBow thought his cigarettes would be on the market within 18 months, but it turned out that the next step - finding someone to grow the bioengineered plants - would be even more difficult.

Vector had never been in the farming business. Like all the other tobacco companies, it employs middlemen called leaf dealers. The dealers buy the plants from farmers, separate the stems from the leaves, and sell the parts to the cigarette manufacturers.

But the leaf dealers were leery of LeBow and his nicotine-free seedlings. Before making any agreement, they ran the idea past executives at the larger companies. The reaction was swift and unequivocal: If the dealers helped Vector, they'd lose the business of the larger players.

Philip Morris argued that the genetically modified tobacco might crossbreed with nonmodified varieties. That contamination, they said, would cause a panic in Europe and Japan, where smokers are

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willing to take their chances with regular carcinogenic tobacco but want nothing to do with GM smokes.

LeBow was in a bind. He had a nicotine-free tobacco plant and nobody to grow it, let alone process it. He decided to abandon efforts to cultivate the crop in the US and began looking abroad for farmers who weren't under Big Tobacco's thumb. He settled on Argentina and, in the spring of 2000, shipped seeds to the country's Tucumán province. Back in North Carolina, construction began on a $20 million, 328,000-square-foot facility to handle the processing that the leaf dealers refused to do. Vector was rapidly becoming a new kind of tobacco company, one that grew, processed, manufactured, marketed, and sold its own cigarettes.

But LeBow's competitors weren't done with him yet. According to him, scouts from "other tobacco companies" started sneaking around his fields in Argentina and snipping samples of his plants. Representatives of Philip Morris soon visited the region's agricultural secretary, Roberto Sanchez Loria. These reps, Sanchez Loria told *The Wall Street Journal* in 2001, warned that they'd stop buying from the province if there was transgenic tobacco being grown there. That, the minister realized, would be a catastrophe for the region. He quickly ordered Vector's crop seized and burned, citing a lack of required permits. The entire crop went up in smoke, and LeBow was back to square one.

"The big companies haven't bought up here for years," says Dan Dienner as he watches his wife and children navigate a small horse-drawn buggy into their "garage" - a section of the barn beneath the area where Vector's tobacco is hung to dry. The family has just returned from the grocery store, and the kids are soon pulling boxes of Wheaties and Fruit by the Foot out of the buggy's hatchback trunk.

Dienner tells me that Vector's offer of $1.50 per pound was hard to refuse, given that the going rate at the time for regular tobacco was hovering around 80 cents. So far, more than 600 Amish families in Pennsylvania have signed up to cultivate 3,800 acres of the transgenic crop - enough to produce 345 million cigarettes. The influx of cash has been a boon to the community, whose primary

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source of income over the past decade has been the depressed milk market.

The crop's popularity in the region causes wagon jams at Vector's New Holland, Pennsylvania, collection warehouse. During the fall harvest, Amish men in wagons overflowing with tobacco waited their turn to unload the harvest onto comparatively massive 18-wheel trucks, which then ferried the product to North Carolina for processing.

Back in Manhattan, LeBow is smiling. "We're over the hump," he announces in a merry tone. "The big tobacco companies can't stop us now. We've got the Amish on our side."

LeBow's tenacity has deep roots. As an engineer in the early '60s, he believed in the power of computers when few others did. He taught computer design while working toward a PhD in engineering at Princeton, then went on to install early data systems at the Pentagon to fulfill his ROTC obligation.

But the world of academia didn't satisfy his ambitions. "I didn't see PhDs being driven around in Lincoln Town Cars," he says. Rather than return to Princeton when he left the Army in 1962, LeBow started a firm that continued the Pentagon project, eventually selling the business for a profit in 1971. Using the money from that sale, LeBow began accumulating increasingly larger companies, buying Information Displays, a workstation manufacturer, in 1975 and computer maker MAI Basic Four in 1985. The year after that he made his biggest purchase to date: the tobacco company called the Liggett Group, later rechristened Vector.

He didn't know anything about the business and had quit smoking 15 years previously because, he says, the health effects "scared the hell out of me." But Liggett's financials looked good. The customer base was locked in, and despite Liggett's 2 percent market share the cash flow was constant. LeBow paid $137 million for the company and later appointed himself CEO.

The business yielded steady dividends for eight years, allowing LeBow to focus on other ventures, such as buying and liquidating Western Union and attempting (unsuccessfully) to take over R.J.

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Reynolds. But by the mid-'90s, large class-action lawsuits against the industry began to proliferate. He knew that if the tobacco companies lost even one case, Vector wouldn't be able to pay its share of the damages.

LeBow saw an opportunity in the dire circumstances. In 1996, he began secret negotiations with the state attorneys general, offering to turn over damning internal documents and testify about the dangers of smoking in exchange for immunity from most penalties - all while Philip Morris was paying Vector's legal fees to maintain industry solidarity.

The attorneys general were happy to let Vector off the hook in exchange for juicy evidence against giants like Philip Morris and Brown & Williamson. So LeBow became the first tobacco executive to publicly admit that cigarettes cause cancer. He even agreed to testify against his own company in the first class-action lawsuit, a 1997 case organized by flight attendants exposed to secondhand smoke on airplanes.

Public health officials hailed him as a hero, but the real picture was more complex. Vector gained an advantage when its competitors were forced to settle with the states and pay heavy penalties for each pack of cigarettes sold. When the other companies raised their prices to accommodate the penalties, Vector jacked up what it charged and pocketed the money. In 1999 - the first year the price increase showed up on the bottom line - Vector's profits rose by a factor of 10. LeBow hadn't made any friends in the tobacco business, but he wasn't looking for any. He now had a Lincoln Town Car and a chauffeur. And a yacht. And a jet.

What he didn't have was a name-brand cigarette.

While work on the Quest was in full swing, LeBow serendipitously hit on yet another way to use technology to create new products.

In 1998, a Vector scientist stumbled upon a sealed canister in the basement of the old Liggett research lab in Durham, North Carolina. The canister contained cigarettes from a secret research initiative known as Project XA, an attempt to produce cigarettes with reduced toxins - a safer smoke. Liggett canceled the program in the '70s,

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reportedly after being pressured by other companies. The industry feared that the introduction of a reduced-toxin cigarette would be a tacit acknowledgment that cigarettes were harmful, an unthinkable admission two decades ago.

But times had changed, and LeBow dived in. By 2000, a research team completed what its predecessors couldn't. Using palladium to treat tobacco, they produced a cigarette that caused 70 percent fewer tumors in mice. Trumpeting the research, LeBow launched a $25 million advertising campaign in 2001 and released what was dubbed the Omni.

It was a huge failure. The brand has managed less than $6 million in sales to date - that's about what Marlboro does in four hours - and, though it's still available, the Omni is not being advertised. "The fact is," LeBow now says, "it's hard to build a marketing campaign around reduced polycyclic aromatic hydrocarbons because nobody knows what they are." He pauses. "But everybody knows what nicotine is."

Ironically, all the work that health officials have done to educate the public about the addictive nature of cigarettes has laid the foundation for the Quest's marketing campaign. For decades, nicotine has been identified as the addictive element in cigarettes - to such an extent that nicotine is often viewed as the most dangerous ingredient.

It isn't. It's the 4,000 chemicals in smoke that cause cancer, emphysema, strokes, and heart disease. Nonetheless, nicotine has become the symbol of all that is scary in cigarettes. Vector has only to say "Nicotine free," and smokers are apt to conclude that the Quest is safer.

That prospect has public health advocates fuming. "Smokers like whatever sounds like a panacea," says Alan Blum, an outspoken industry critic who heads the Center for the Study of Tobacco and Society at the University of Alabama. "But no matter what you do to smoke, it's still smoke. Maybe you can make it a little better, but it's like jumping off the 40th floor instead of the 50th."

The Quest, however, neatly sidesteps the debate over reduced-harm

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cigarettes. LeBow learned from the Omni that marketing a healthier cigarette is next to impossible. Instead, he's decided to introduce the Quest as a way for smokers to wean themselves off nicotine. In other words, it's a smoking-cessation product, much like Nicorette. This puts LeBow in a difficult position. In order to market the Quest as a cigarette that helps people kick the habit, Vector must submit extensive research proving its efficacy to the FDA, which regulates health claims. Vector began the research in October, but it won't be ready for at least nine months.

LeBow isn't willing to wait that long to launch the Quest. So he's in the position of introducing a smoking-cessation product without uttering the words "smoking cessation." That's leading to some bizarre marketing materials. Rather than straightforwardly explaining the step-by-step process for kicking nicotine, the colorful Quest insert exhorts smokers to "Step to nicotine free!" And then obliquely asks, "Which to try first? Why not low-nicotine Quest 1?" It sounds like a game of Taboo, where you lose if you say the forbidden word. But Vector officials don't seem to be having any fun. With straight faces, they repeatedly stress that they are making no health claims about their product.

Public health types aren't buying it. "When we show these 'we're making no claims' ads to the 600 smokers in our studies, we find that smokers do in fact perceive health claims," says Connolly, of Massachusetts Tobacco Control, a state-funded watchdog group that conducts advertising research.

GlaxoSmithKline is even angrier. Before bringing NicoDerm and Nicorette to market, the pharmaceutical giant was required to submit both to the government for approval. But the Quest is protected by the 2000 US Supreme Court ruling that bars the FDA from regulating the tobacco industry - as long as Vector doesn't make health claims. "With Glaxo's products, there's extensive guidance about how to pick your dose," says Jack Henningfield, a Glaxo consultant and public health expert. "With the Quest, Vector isn't offering any guidance about how to taper off. The fact that they would unleash this on the marketplace and use the American public as a laboratory is appalling." Glaxo has already petitioned the FDA to regulate a nicotine lozenge produced by Star Scientific, a small

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tobacco company in Chester, Virginia. Though Glaxo won't comment on any plans to compel the FDA to regulate the Quest, the company is clearly concerned about competing on an uneven playing field.

Still, a few in public health give Vector credit. "LeBow's been a leader in reforming the tobacco industry," says Tobacco Control's Connolly.

"But he doesn't have the resources to do it all at once. Do we crack down on LeBow and allow Philip Morris to become the monopoly of safe cigarettes because they're the only people with the resources to meet FDA standards?"

LeBow nearly loses his temper when asked about the criticism.

"It's almost like these people want cigarettes to stay dangerous," he says. "If a company like Vector wasn't around, who would come out with these products? Who would have the commitment to introduce a nicotine-free cigarette?"

Clearly, LeBow is a businessman first and a public health trendsetter second. After all, his discount cigarettes are fueling Vector. Still, LeBow seems to relish being a tobacco executive on a public health crusade. "Sure, the Quest might put us out of business in the long run," he says, fingering the 10-pack carton sitting on the table. "But it's important that I'm here to beat up the industry and force these guys to do better." He leans forward and his face brightens. "And I intend to make a lot of money along the way."

Joshua Davis (joshuahdavis@yahoo.com) wrote about the future of futurism in Wired 10.10.

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